SAMVIDA

System for Appointments of Contractual /Volunteer Services in Districts of Bihar

Government of Bihar

Executive summary

SAMVIDA, popularly known as online contractual recruitment/volunteer services portal, is the practice of using ICT technology and in particular Web-based resources for tasks involved with finding, attracting, training, assessing, interviewing and hiring new candidates/personnel under various schemes of state and central government. The purpose of online recruitment is to make the processes more efficient, effective and economical. Online recruitment can reach a larger pool of potential employees and facilitate the selection process in transparent manner. SAMVIDA is a recruitment management system which is an integrated product suite or portal that streamlines and automates the entire processes involved.

Introduction

Online recruitments have revolutionized the recruitment landscape for both employers and job seekers and largely increased the efficiency with which hiring decisions can take place. Today, with this medium tried, tested and proven to be true and more importantly indispensable, government departments rely on job portals as a primary source of professional talent both on a stand-alone basis and in some cases to complement traditional hiring methods. There has been a paradigm shift in the management process thanks to the efficacy and ease-of-use of today's sites and with internet penetration levels ever skyrocketing, geographic boundaries blending when it comes to professional mobility and the quest for talent at fever pitch in booming regional economies, this medium is definitely here to stay.

SAMVIDA has a comprehensive reach covering 38 districts of Bihar, 534 (Five Hundred and Thirty Four) Blocks of state of Bihar, 8463(Eight Thousand Four Hundred and Sixty Three) Panchayats

Overview of the project owner

Amrit Lal Meena

 IAS.Principal Secretary, Agricultural Department and O.S.D to Chief Minister, Bihar and ex-Principal Secretary, Rural Development Bihar

Mr. Meena realized that the current system of recruitment used by the state government was designed to serve the needs of a Public Service that was smaller and complex. It provided services to a citizenry whose needs were simple. As the size of the society increased, so too did the quantity and complexity of the demands they made on the State apparatus. Besides Bihar Public Service Commission, there exists Bihar Staff Selection Commission for recruitment of regular posts. However, he felt that due to complex procedures and interdependence among

departments, the process is delayed for years-to-years. In addition to regular posts, there are many temporary and contractual posts, part of various schemes, in which qualification and number of posts vary depending upon current needs. Recruitment of such posts cannot be taken up by Public Service Commissions. At this moment he envisioned and developed SAMVIDA which was a solution to all of the above problems

The aim was to develop an online portal which can be used by various departments for selection of candidates for surveys, contractual appointments, short term appointments etc.

Project overview

History

With the increase in the population and complexity of needs, it was imperative to refine the old recruitment process. Besides Bihar Public Service Commission, there exists Bihar Staff Selection Commission for recruitment of regular posts. Due to complexity and interdependence, this process was delayed. There are two kinds of posts – Regular posts and Temporary and contractual posts, part of various schemes, in which qualification and number of posts vary depending upon current needs. Recruitment of such posts cannot be taken up by Public Service Commissions. In order to benefit and implement government schemes, it was important to recruit manpower for various state and central schemes like NREGS, IAY, Horticulture Missions, and Accredited Statistical Volunteers (ASV) etc. In addition, state Government had to undertake lots of surveys and in absence of trained manpower, teachers were being used for this purpose resulting in closure of schools. The Public Service itself is enlarged to cope with government needs; however, systems and procedures to support increased demands for staffing within the organization have not been upgraded in proportion either to internal needs or to the needs of citizens seeking employment.

Challenges

o   Time-consuming procedures in traditional processes resulted in frustration among users of the system and possibly loss of qualified entrants
o   Delay in the recruitment of new staff adversely affect the ability of a Ministry/Department to provide promised services to its citizens
o   Delay in the receipt of approvals for recruitments which affected individuals'
o   Remuneration and the organization's ability to effectively plan its future activities
o   Difficulties in appointing qualified retirees into the Service
o   Recruitment of large number of volunteers needed for various schemes.
o   Filling non-traditional positions is frequently constrained by the rigid structures that are applied to traditional areas of employment
o   Redundancy
o   Inconsistency

Innovation

Online recruitment allows for immediate real-time interaction and 24x7 hiring/job search activity. The posting typically remains active for as long as 30 days and continues to receive applicant CVs immediately as job seekers come across it. This is in comparison to traditional methods where a newspaper ad may take appear a week later and only for a day, or a recruiter has to wait till month-end to reap the benefits of an ad in a monthly industry or geography-specific publication. Typically, e-recruitment hiring is on average 70% faster than traditional hiring methods and the recruiting cycle is speeded up at every stage from posting, to receiving CVs to filtering to managing the contacts and workflow

Modalities of the new system

Working of SAMVIDA

SAMVIDA portal is being used by various departments for selection of candidates for surveys, contractual appointments, and short term appointments etc. This facilitates unemployed youth to register to the website for getting services and alerts. Depending upon necessary eligibility criteria registered users automatically get SMS and email for applying for suitable vacancies. The software provides facility for registering a person to the website by entering personal credentials. This allows departments to publish any advertisement for recruitment of volunteers or contractual appointments. This provides easy and effective methodology of recruitment. With most of public service commissions overloaded and delayed with regular employment state government has decided to use alternate method of employment/volunteer selection process.

A much simplified method has been adopted for selection of manpower after process re-engineering:

1) The applicants are allowed to fill an on-line form as per eligibility criteria. Only eligible candidates can fill for one post from one district.
2) In case the department seeks to collect application fee from candidates then it can be done through RTGS facility in banks.
3) The applications are then processed and draft merit list is published as per criteria and reservation rules.
4) Candidates are asked to submit their claims/grievances if any over some specified period. The grievances are first resolved along with a system of proper intimation to the complainant which is followed by publication of final merit list for verification of documents. In order to assist district administration during verification various in process documents are also generated though the software itself. The software facilitates parallel recruitment process across state.
5) After verification of documents the candidates are offered employment. In case of volunteers there is also provision for written test, training, evaluation, certification list etc. generated through the system.
6) Software also incorporates SMS and email integration so that alerts and information can be shared to the registered users at regular interval.

7) Funds collected as part of application fee can be used for maintenance, manpower support and further enhancement.

Number of Processes/Activities Covered:

1. Formulation of Recruitment Process, eligibility criteria, merit list, grievances redressal, joining process etc.
2. Uploading of advertisements
3. Registrations by applicants
4. On-line form submission
5. Preparation of Draft merit list
6. Submission of Documents by applicants
7. Preparation of Checklist for Verification at districts/blocks
8. Preparation of final merit list
9. Schedule for training of selected candidates at Blocks
10. Hall Tickets preparation and distribution to candidates
11. Examination and result preparation of ASV etc.
12. Information to candidates through SMS alerts etc.
13. Allotment of candidates to respective places.
14. Joining report of candidates
15. HRMS for Contractual Employees/Volunteers.

Implementation model

To ensure equity and transparency, the application form and recruitment process has been standardized and the processes have been devised for automating entire recruitment process.

The implementation strategy includes approval of steering committee, positioning of funds, notification of procedure for selection, involvement of field formations, and technical feasibility report submitted by NIC. The project is likely to be notified for implementation in all departments through CENTRE FOR GOOD GOVERNANCE, in state of Bihar. The software has scope to be implemented in most of the departments and societies of Govt. of Bihar

Communication and dissemination strategy

o Public notice through Advertisement in newspapers.
o Website of Public Relations Department
o Official Website of State Govt.
o Official Website Of Department
o e-Services Website.
o SMS to Registered Users of the Website.
o Email TO Registered Users of the Website.

Technology platform

I.   Description-H/W and Software Specification

- Servers & Desktop High End Blade Servers, Local servers, Desktops
- OS Windows 2008, Windows 7 & XP
- DBMS SQLSERVER 2008
- Framework .net Framework 4.0
- IDE Software Visual Studio 2010, Java Script
- Reports Crystal Reports
- SMS NIC SMS Gateway
- Mobile App Android based Java Application
- GIS/GPS Mapping (Spatial Data) Silver Light, ARC GIS Server
- Unicode Support Indic IME, Google API
- Video Player Adobe Flash Player

II.   Interoperability

Interoperability standards available for government frameworks have been followed and the data generated are directly used for HRMS software. Software has been developed using open standards.

III.   Security concerns

All measures have been taken to make application secured from unauthorized access and data are also protected. Logs are maintained and proper backup mechanism is being followed to ensure protection of data from losses.

IV.   Any issue with the technology used

Mobile app is being developed to allow detached access to applications and improvements are being done time to time as per need and suggestions of the department. Reusability of data is also given highest priority.

V.   Service level Agreements(SLAs)

There is proper agreement between stakeholders and it is governed by MOU signed between NIC and departments. Separate Roles and Responsibilities have been defined for stakeholders.

Citizen centricity

1. **Impact on effort, time and cost incurred by user**
   o Proven to reduce cost per hire
   o No need for temporary staff
   o System cost affordable for most departments
   o Management information enables better tracking of recruitment effectiveness
   o More efficient recruitment = increased transparency in processes
   o Speedy Response
   o Quick Disposal of data

2. **Feedback/grievance redressal mechanism**
A multi-layer grievance redressal mechanism has been formulated to address various grievances received. On an average 8000 to 10000 grievances are being addressed before finalization of results. Essentially, thus, an institutionalized systematized mechanism for accepting grievances, processing them quickly and disposing them by taking necessary action has been setup for this purpose. A comprehensive and coherent management system for grievances handling that not only integrates the established principles of good grievance redressal, but also painstakingly operationalizes them will work best to achieve the most important objectives that underlie good governance and people-centric public service delivery. The complainants are able to know about improvements made as a result of their complaints and about the recourse to further appeal / action if they are not satisfied with the manner in which their complaint is disposed.

3. **Audit Trails,**
Maintaining a complete audit trail for each transaction throughout its lifecycle is important not only for internal analysis and process optimization, but also for compliance with industry standards and regulations.
 Following procedures have been adopted for audit trail records:
   - Maintain a complete record of every action that takes place to a database throughout its lifecycle
   - Streamline compliance with industry quality standards and regulations
   - Protect organization in legal situations with a proven record of the actions executed on a given database
   - Filter the audit trail display to search for specific activities to database
   - Export the audit trail records for archival purposes or reporting purposes

4. **Interactive platform for service delivery**

The application is accessible on internet through a web application. Registered users can access the website. The merit list along with application details are made available for the public for transparency purposes. Information is also being communicated through pull and push SMS service configured for this purpose. Citizen can access the services though website or by sending SMS to specific number. SMS/email is being widely for communicating large number of people.

5. Efficiency Enhancement

(i) Volume of transactions processed,
The system has processed following transactions

Name of Posts	No. of Posts	Transactions processed
Accredited Statistical Volunteer [Planning AND Development Department]	80,000	12,00,000
Block Development Officer	534	6,000
Circle Officer	453	5400
Online examination system for board of revenue	12,000	65,000
OMBUDSMAN for NREGS 38 300 ACCOUNTS officer of Rural Works Department	300	2550
Various posts under Panchayati Raj Department	200	12,000
IAY sahayak, IAY Engineer, Accountant	9770	6,70,000
PRS, Accountant, JE	5400	7,00,000
SELECTION of Retired persons for RD. DEPTT.	350	56,000
JE for NREGS	2290	8,600
Various Posts of BRDS	1600	30,000
Various posts of Horticulture Mission	2,000	In Progress
Selection OF Mate OF Nregs	80,000	In Progress
Kishan Salahkar	534	In Progress
Various Post Under Agriculture Department	4,500	In Progress

(ii) Coping with transaction volume growth

NIC Data centre equipped with multiple servers has been used for application hosting and databases have been used for hosting the application. A dedicated team of programmers continuously monitor the site along with other services.

(iii) Time taken to process transactions,

Transactions are processed as and when it is posted to the server. Delivery of SMS is through NIC SMS gateway which gives some delay as all these are shared services

(iv) Accuracy of output,

The accuracy of output has been given the highest priority otherwise this may lead to legal complications.

6. **Ease of transaction**
   o   Online website with operating manuals
   o   Training of field functionaries through video conferencing
   o   Master trainers programme at state HQ
   o   Mock test site
   o   Editing of data before and after submission of form is facilitate
   o   Application fee for some departments are submitted through RTGS

Accessibility

User Accessibility:
- Citizen can access services from CSCs or internet Kiosk.
- Online application form is available for addition/deletion.
- Most of the Forms are Online for downloads
- Online Enquiry and Grievances Monitoring.

Transparency in recruiting strict adherence to guidelines that promote transparency in the appointment process is necessary. The basic guarantees of transparency are in the application of the following:
- Publicly disclosed selection criteria for positions
- A documented process of selection through equitable, assessment of applicants against the relevant selection criteria, with reasons provided for decisions to employ or not to employ
- A procedure for open and equitable resolution of any complaints in selection processes.
- Transparency will be further enhanced by a genuine public invitation for applications for employment.

Single-window Resolution:

Helpdesk and Kiosk based service has been enabled so that anyone can enquire election related information round the clock.

User convenience

(i) Service delivery channels (Web, email, SMS etc.)

Panchayats: Common Service Centres - 6000 Common Service Centres have been established in the State for providing citizen centric services.

Block Site: CT infrastructure has been provided through Block Centre/Executive Assistant established across the State on HOH (Hardware on Hire Basis) connectivity is being provided through Internet Data Card/SWAN Node. Block level Officers have been trained to operate the system.

District Site: ICT infrastructure has been provided to all the districts for day to day operation. Officers/Staff have been trained to enter on-line data and prepare various kinds of analysis reports.

State SAMVIDA Portal: (http://eservices.bih.nic.in/)

This has been hosted in State Data Centre of NIC which provides 24 x 7 services and a high speed link for internet backbone. The data centre is connected through 10G link of NKN. Site is accessible through internet and measures have been taken to support around 40,000 users at a time. Web Application is integrated with SMS and e-mail facility so that stakeholders are informed through regarding transactions and events in the system.

(ii) Accessibility (Time Window)

The application becomes available after announcement of dates and remains active, 24 X 7 to the citizen till entire process is completed.

(iii) Distance required to travel to Access Points

Application is accessible from CSCs or any Cyber Café available at Panchayats/Villages. Only after selection the candidates need to visit Block/District Centre for physical verification of documents.

(iv) Facility for online/offline download and online submission of forms,

Entire process has been integrated as work flow system and is accessible to various stakeholders at panchayats/villages, blocks, districts as well as state HQ. APPLICATION FORMS can be submitted on-line and merit-list can be verified on-line.

(v) Status tracking

Application provides facility to track status of application through web interface and SMS. Progress related to application processing is also informed to the registered users through SMS and email.

Scalability

Role-Based Access Control (RBAC) is used on modeling organizational-specific access control policies. The main components of RBAC are users, roles, permissions, and user-role assignments and role-permission assignments. Users of the database system are able to access predefined sets of views, based on their authorizations. These users have different access requirements according to the role they are using in a given scenario. They have taken advantage of SQL Server's support of role based access control has implemented security administration based on the users' roles in the system.

Strategy planned for Disaster Recovery and service continuity
The system uses Replication Technology for protecting data. With the right replication technology, snapshots can be replicated continuously between sites, synchronously or asynchronously, to ensure data is current. The site has DR site at Hyderabad connected through 34 MBPS leased line and it is also planned to create near DR centre at Patna itself.

Adaptability analysis

(i)   Measures to ensure adaptability and scalability

Usually good software is robust – it can tolerate some deviations in the environment. For example, if user presses character keys while entering numeric data the software can be designed to ignore such incorrect key presses. While robustness to the software can be added at the design or even the implementation stage, adaptability requirements cannot be added at such late stages. Adaptability differs from robustness in the scale of environment change – adaptable software can tolerate much larger deviations in the environment than a robust one. Adaptability can be enforced only if it is considered at the architecture development stage.

(ii)   Measures to ensure replicability

The application is generic software for skill development, training, survey, recruitment for contractual appointments. In current scenario of scheme based appointments such practices not only reduce load on the department but also simplifies the entire process. Most of the departments are facing problem of recruiting skilled people on contract basis. In addition different departments carry out various surveys and monitor schemes at village and panchayat level. The application has been developed keeping in view large number of such employments in the departments and societies. This application completely simplifies the process and makes the process extremely transparent. The application has already been implemented in seven departments making it replicable in other departments and societies.

(iii)   Restrictions, if any, in replication and or scalability

There exist no restriction in replication and scalability. With more and more state and central government schemes opting for contractual manpower and volunteers such system facilitates

fast recruitment process and simplifies the processes. The application has every scope for implementation in every scheme in various states.

(iv)   Risk Analysis

The project completely depends upon availability of internet connectivity to the data centre. To support the project state govt. Funding is necessary at regular interval. Proper functioning of server infrastructure during advertisement period is necessary. Application also depends completely on NIC sms and email services. Proper formulation of selection process, non-intervention by authorities is the key for success of the project.

Impact on the stakeholders

Value delivered

(i) To organization

- Automated Processing of 30, 00,000 transactions.
- Generation of in-process documents needed processing
- Faster and effective communication between field formations.
- Preservation of records in digital form.
- Implementation of Standard Operating Procedure
- Centralized control of processes and events in the organization.
- Single view of transactions to all stakeholders.
- Reduction in time cycle for processing transactions.
- Cost effective solution and alternate employment opportunities.
- Automatic Deployment of manpower for large scale persons.
- Validation Of processes and eligibility criteria.
- Centralized control on processes so that deviations can be controlled.
- Online verification of records
- Cost saving and fast processing

(ii) To citizen
- Automatic ALERT for new opportunities, training, employment
- Online Submission of application forms
- Online tracking of application
- Online enquiry
- Online Grievance Redressal
- Sms and email ALERTS
- Transparent Processes and Participation
- Analysis Reports
- Single sign On system

- Cost saving and Service at door step.

(iii) Other stakeholders
- Reduction in number of activities
- Standard Operating Procedure
- Revenue generation by means of online applications entry and Search Services.
- Easy communication and information dissemination system
- Transparency in processes
- Better document management

Sustainability

- Project has been funded through Govt. Of Bihar with technical support of national informatics centre, Bihar.
- The project has scope for implementation in every department as most of the departments are now looking for contractual appointments.
- A dedicated project team has been constituted to support the processes.
- A team of officers from concerned department is nominated to look into
- Project is part of e-service delivery framework accepted by state government.
- Project has very less capital expenditure and recurring expenditure is borne by IT department and concerned department.
- The process is a cost effective mechanism of handling lakhs and lakhs of applications which arise during advertisement.
- CSC operators and kiosk operators have become well versed with the system and is now one of the most accepted and transparent system in the state.
- In some cases applicants need to submit a nominal fee though banks so that expenditures related to manpower and other expenditures can easily are met through these costs itself.
- With more and more schemes of state and central government promoting for volunteers and contractual appointments such system provides an alternative system for recruitments across country.

Annexures

1. Stakeholders Consultation

Stakeholders for the Project include student, Unemployed Youth, Departmental Heads, District Administration, Block Administration, Citizens, Survey Agencies, and Panchayat Functionaries

Following activities have been performed for stakeholder's consultation
- Formulation of plan for training persons
- Establishment of procedure for selection OF PERSONS
- Preparation of content of training
- Online Application FROM Candidates
- Preparation of Merit List
- Verification of Documents
- Offer letter for appointments/certificate for training and certification.

Effective ICT led governance in the skill development and recruitment encourages better decision making and the efficient use of resources and strengthens accountability. Effective governance is characterized by robust scrutiny, which provides important pressures for improving performance and tackling corruption. Effective governance can improve management, leading to more effective implementation of the chosen interventions, better service delivery, and, ultimately, better outcomes

2. Comparative Analysis of earlier Vs new system

Parameters	Earlier System	New System
BPR and Change Management	1.Recruitment only through BPSC/SSC 2. Time consuming 3. Suitable for permanent regular posts 4. Long joining time 5. Less flexible 6. Suitable for small no. Of Persons to be selected who is not govt. Employees.	1. Fast and effective for contractual or short term appointments through alternative methods 2. Process of recruitment has been simplified 3. Even retired persons can apply. 4. Large of volunteers need 5. Mate in NREGS is skilled labor who can assist in day-to-day operations. 6. Suitable for short term scheme based appointments 7. One person can apply from one district against one post. 8. Complete automated process for recruitment on

Outcome/benefit	1. Through verification of records including police verification 2.high quality people getting selected through multi-layer selection process	1. Most suitable for post which are temporary in nature. 2. Fast and effective process. Processes are completed within two months 3. Past records are criteria for selection. 4. Simplified selection process. 5. Candidates can be trained and then can be recruited for survey works 6. Parallel recruitment process across state 7. Low cost process 8. Less involvement of manpower in the process.
Change in legal system	Strict rules of recruitment and established processes	Contractual and ad-hoc recruitments are guided though contracts signed between two parties which can be terminated at any point of time based on performance
Rules and regulations	Complex rules	Simplified rules which are designed to suit current needs and customized as per requirements.